

Name:

Date:

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PART A In the space on the left, write the letter of the term or phrase which **best** completes the statement or answers the question (1 mark each).

- ____ 1. This is not considered a major factor in causing dramatic climate change.
a. Ocean currents
b. Catastrophic events
c. The Earth's core
d. The carbon cycle
- ____ 2. Which of the following is **not** considered a greenhouse gas?
a. Carbon dioxide
b. Methane
c. Ozone
d. Nitrogen
- ____ 3. Which of the following greenhouse gases is **not** associated with the burning of fossil fuels?
a. Methane
b. Carbon dioxide
c. CFCs
d. Water vapour
- ____ 4. Which of the following is not a carbon sink?
a. Trees
b. Oceans
c. Pollution
d. Plants
- ____ 5. Humans produce large amounts of nitrous oxide from the use of nitrogen enriched _____.
a. Fossil fuels
b. Fertilizers
c. Water
d. Coolants
- ____ 6. The melting of polar ice can lead to ...
a. Increased droughts
b. Colder temperatures
c. Better ocean life conditions
d. Rising sea levels

- ___ 7. A *La Niña* event often brings ...
a. Increased moisture
b. Warm surface water from the ocean
c. Flooding
d. Colder winters
- ___ 8. Which of the following is **not** associated with ozone?
a. Blocking UV light
b. Trapping thermal heat
c. Enhancing global warming
d. Lowering carbon dioxide concentrations
- ___ 9. The ___ is the transition zone that separates cold, deep ocean water from warm surface waters.
a. Carbon sink
b. Thermocline
c. Permafrost
d. Water cycle
- ___ 10. Which of the following would decrease the CO₂ concentration in our atmosphere?
a. Deforestation
b. Burning fossil fuels
c. Industrial processes
d. Planting trees

PART B In the space provided mark each of the following as true or false. (1 mark each)

- ___ 1. Cattle farming produces methane.
- ___ 2. CO₂ concentrations have decreased in the past ten years.
- ___ 3. A volcanic eruption can bring colder temperatures.
- ___ 4. CFCs breakdown the ozone layer.
- ___ 5. During a typical *El Niño* year, Canada will experience milder winters.
- ___ 6. When organic matter is composted, carbon is stored in the soil.
- ___ 7. Global warming makes it difficult for pine beetles to survive.
- ___ 8. Trees are carbon sources.
- ___ 9. Permafrost causes water damage.
- ___ 10. Global warming is not linked to increases in extreme weather.

PART C In the space provided, match each term or phrase with the best definition. (1 mark each)

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| ___ 1. Methane | A. The increase in the average global temperature. |
| ___ 2. Global warming | B. This greenhouse gas is naturally formed by bacteria in ocean water. |
| ___ 3. CFCs | C. Examples include plants, oceans, and soil. |
| ___ 4. Carbon sink | D. Long-term changes in weather patterns in certain regions. |
| ___ 5. Climate change | E. Largely contributed by decaying matter in landfills. |
| ___ 6. <i>La Niña</i> | F. Examples include burning of fossils fuels or weathering of rocks. |
| ___ 7. Carbon source | G. This event causes milder than average Canadian winters. |
| ___ 8. Nitrous oxide | H. This greenhouse gas blocks harmful UV light. |
| ___ 9. Ozone | I. Largely responsible for creating holes in the ozone layer. |
| ___ 10. <i>El Niño</i> | J. Causes hurricanes to develop more easily in the Atlantic Ocean. |

PART D Each of the following questions requires a short answer.

1. Describe how fisheries and wildlife in British Columbia are predicted to be affected by climate change. Be sure to include an example of how each may be affected. (2 marks).

2. List two responses Canada has already made to reduce our greenhouse gases. (2 marks)

3. List three ways El Niño affects climate. (3 marks)

4. How can sediments and coral rings be used to study climate? (4 marks)

5. How does deforestation contribute to global warming? Why is this situation even worse when it comes from forests being burned? (4 marks)

6. Name two reasons why we should be concerned about rising sea levels. (2 marks)

7. List three pieces of distinct evidence noted by scientists of climate change. (3 marks)